Conceiving and Misconceiving the Monstrous in Fiction and in BioScience, in Medicine and in Art

Professors Deborah Harter and Michael Gustin
Biochemistry 368 / Humanities 368 TTH 2:30 – 3:45

To study monsters is to discover that monstrosity is not just a phenomenon of nature but also a reflection of the social, a way of seeing, a habit of thinking, an effect of language. This will be a course that emphasizes discussion and close reading of texts and images that allow the insights of the humanistic and of the scientific to speak to each other as we consider those ways in which to reflect on the "monstrous" is to discover what constitutes the human—what we fear, how we see, and who we are.

Our approach this semester will be both experimental and informal as we follow the broad topic areas below. We may wish to delete or to add to our readings as we go along, or to incorporate student suggestions, or to change the order of topics. In the end, our goal is to achieve a kind of "liminal" understanding of the monstrous—one that occupies that transformative space "in-between" in which the different viewpoints of nature and of language, science and art, evolution and the social lead to insight. We invite our students to wander at will, meantime, beyond our topics and texts, and especially in the context of projects and papers. And we encourage all to participate (along with Harter and Gustin) in bringing to life our "Monster" blog. It may be found at http://www.owlplayground.com/monster, and may be accessed either directly or through Owlspace. (Use your net ID to login and then the lost password link to generate a site-specific password.)

I. The Nature and the Language of Monstrosity

Evolution naturally happens in small steps, even for major transitions in form. But humans speed evolution through inbreeding and genetic engineering. Variety is the spice of life and its foundation, but some human cultures have investigated improving populations by culling the less fit. This unit's evolution-related readings address hopeful monsters (Gould), dog breeding that results in monster dogs (Mosher et al), and eugenics past and future (Easley et al; Sparrow).

Language, too, is a way of speeding, diverting, even re-inventing evolution. It gives birth to forms of the monstrous according to whether we call a thing "freakish" or "wondrous," "abnormal" or "atypical," "different" or "deviant." The words we use are not simply our way of describing what we discover, but also of "inventing" what we describe (Sontag, Lavater, Garland-Thomson).

- Gould, "The Return of Hopeful Monsters"
- Mosher, et al., "A mutation in the myostatin gene increases muscle mass and enhances racing performance in heterozygote dogs"
- Easley et al "Gamete derivation from embryonic stem cells, induced pluripotent stem cells or somatic cell nuclear transfer derived embryonic stem cells: state of the art"
- Sparrow, "In vitro eugenics"

- Asma, *On Monsters: An Unnatural History of Our Worst Fears* (p. 1-15)
- Sontag, *Illness and Metaphor* (excerpt)
- Lavater, *The Rules of Physiognomy* (excerpt)
- Garland-Thomson, "A Genealogy of Freak Discourse in Modernity" (1-23)
- Kafka, "The Metamorphosis"

II. Extraordinary Bodies

Dystonia - involuntary muscle contractions and body distortions – has been medically treated as a psychosexual disorder by psychiatrists, and has been remedied by neurosurgeons who destroy the center of the brain or implant a "brain pacemaker." The dystonia-related readings (Cooper, Breakefield et al, Liang et al) introduce the mysteries of this disfiguring brain disease and accompanying ethical and moral dilemmas of science-guided medical therapies.

How do we know, in the case of those whose bodies differ from ours, when we are "curing" them and when we are simply ensuring their bodies will resemble our own? Dystonia is disfiguring and debilitating, but what about blindness? Deafness? The inability to walk? Hannah Thomson points out that we tend "to assume that disability is about tragedy, struggle, suffering and pity." David Jay wonders why the quality of bodily beauty has come to be so thoroughly abandoned in our perception of women who have undergone mastectomy.

- Cooper, *The victim is always the same* (excerpts)
- Breakefield et al, "The pathophysiological basis of dystonias"
- Liang et al, "Torsin A hypofunction causes abnormal twisting movements and sensorimotor circuit neurodegeneration"

- Hannah Thomson, "The Cultural Work of American Freak Shows, 1835-1940," (55-80)
- Joseph N. Straus, *Extraordinary Measures: Disability in Music* (p. 3-14)
- Baudelaire, *The Flowers of Evil*, selected poems
- Jay, The Scar Project (selected images)
- Toulouse Lautrec (selected images)

III. Infection and the Topology of Fear

People with disfiguring infectious diseases such as leprosy have been avoided by healthy humans (White). Some people have a genetic susceptibility to leprosy, leading to an initial hypothesis that leprosy was an inherited rather than infectious disease (Scollard). The bacteria M. leprae enters human cells and causes infected cells to move and spread the disease to other tissues (Masaki): such reprogramming is a common theme in parasites that take over a host.

Three major epidemics in the late medieval and early modern periods in Europe (leprosy, plague, and syphilis) shaped, to a great degree, many of our perceptions of the body today. The body of syphilis was a polluted body. The body of the leper was an object of disgust. Each one, as they had already in Biblical texts, represented not just threat but profound "disorder," notion that underlies our view of the diseased even today (S. and J Hatty). "And the leper in whom plague is, his clothes shall be rent, and his head bare, and he shall put a covering upon his upper lip, and shall cry, Unclean, unclean" (Leviticus 13:45).

- White, "In the Sanctuary of Outcasts: A Memoir"
- Scollard, "The continuing challenges of leprosy"
- Masaki, "Reprogramming Adult Schwann Cells to Stem Cell-like Cells by Leprosy Bacilli Promotes Dissemination of Infection"

- Priscilla Wald, *Contagious: Cultures, Carriers, and the Oubreak Narrative* (excerpts)
- Kristeva, *Powers of Horror* (excerpts)
- Melville, "Bartleby the Scrivener"
- Maupassant, "Mme Hermet"
- Film, "The Andromeda Strain"

IV. Perception and Misperception

How we perceive physical abnormalities and abject human physiology is shaped by uncontrollable automatic stereotyping (Bargh), category-jamming (Carroll), and the sense of disgust (Roach). It is leavened, on the other hand, by the re-centering discipline of forensic nursing (Jacob).

The very detail with which our eyes seem to record the landscapes that lie before us, hide from us those ways in which we ourselves, without knowing it, shape the things we see. One could almost say that unself-conscious perception is a form of blindness.

- Bargh, "The cognitive monster"
- Carroll, "Why horror?"
- Roach, *Gulp* (excerpt)
- Jacob, "Nursing so-called monsters: abjection & fear in forensic psychiatric nursing"

- Garland-Thomson, *Staring: How We Look* (selections)
- Bloom, *Wax Works: A Cultural Obsession* (Introduction)
- Buisine, "The First Eye"
- Film: "The Elephant Man"

V. Criminality, Psychopathology, and The Civilized

Psychopathic traits combine a reduced emotional empathy with impaired decision-making. These behavioral components are mediated by the amygdala and pre-frontal cortex, respectively (Blair) and, based on genomic studies, have a strong genetic component that can arise de novo (Gratten). The social symptoms of psychopathy can be potentially countered by empathy-enhancing drug treatments, the most bally-hooed of which is oxytocin. But oxytocin has potential side effects (Miller).

"Psychopathology," of course, is never a matter of biology alone. It is also a function of how we define (and who defines) unacceptable behavior (Lombroso, Foucault, Freud). It derives from the power with which we enforce the "civilized" (Metzl, O'Connor). And it reflects our own discomfort with what we fear in ourselves. Karl Menninger once wrote that "We need criminals to identify ourselves with, to secretly envy and to stoutly punish. They do for us the forbidden, illegal things we wish to do."

- Blair, "The neurobiology of psychopathic traits in youths"
- Gratten, "Large-scale genomics unveils the genetic architecture of psychiatric disorders"
- Miller, "The promise and perils of oxytocin"

- Foucault, *Discipline and Punish: The Birth of the Prison* (excerpts)
- Freud, *Civilization and its Discontents (excerpts)*
- Pick, *"Lombroso's* Criminal Science" (excerpts)
- Metzl, *The Protest Psychosis* (excerpts)
- O'Connor, "A Good Man is Hard to Find"
- Film: "Silence of the Lambs"

6. The Feminine, the Masculine, and the Transgressive Body

Ambiguity in gender assignment is a result of virilization in genetic girls or incomplete virilization in genetic boys (Wilson), which can switch dramatically when the brain changes at puberty (Navarro). Such ambiguities can lead to distressing interactions with peers (Eugenides) or parents (Solomon).

Few categories of the human have been more central to modern notions of identity and self than the one of sexuality, and few have been more poorly understood. What we do know is that the body is always a sexualized body—and always, to this extent, a "transgressive" body vulnerable to being desired and punished, imprisoned and idealized, and especially judged, whether from the perspective of the religious, the moral, the political, or the legal (Dumit, Thomson, Laqueur, Beauvoir). It is a "*terra incognita*," as Vicky Kirby has noted, "an anarchic substance that we all possess and are possessed by." Its "curious matter is the unruly subject that our sovereign will can only pretend to govern."

- Wilson, "Advice on the management of ambiguous genitalia to a young endocrinologist from experienced clinicians"
- Navarro, "New insights into the control of pulsatile GnRH release: the role of Kiss1/neurokininB neurons"
- Eugenides, *Middlesex* (excerpts)
- Solomon, *Far from the tree* (excerpts)

- Laqueur, "Of Language and the Flesh," (1-24)
- Dumit, *Picturing Personhood: Brain Scans and Biomedical Identity* (selections)
- H. Thomson, "The Male, the Manly and the Masculine" (62-81)
- Beauvoir, *The Second Sex* (Selections)
- LeFanu, "Carmilla"

VII. Manufacturing Monstrosities

Humans carefully examine and predict the intentions of themselves and others, thus creating and giving consciousness. This ability to construct attention schema can potentially be programmed into a machine (Graziano), thus constructing a conscious computer. But blurring of the line between human and computer-generated facsimile (Mori) or between human and animal (Schreiweis et al) can be jarring.

From Kafka's vision of anonymous authority in "In the Penal Colony," to Primo Levi's depictions of the brutality of the Nazi war machine in his memoir about Auschwitz, to the film, 2001, produced at a time when the speed of technological invention was outpacing our understanding of where this would lead, our feelings about machines—just like our feelings about our own bodies—are always marked by ambivalence.

- Graziano, Consciousness and the social brain
- Mori, "Uncanny valley"
- Schreiweis et al, "Humanized Foxp2 accelerates learning by enhancing transitions from declarative to procedural performance"

- Davenne, "Automatons," in *Cabinets of Wonder* (169-186)
- Kafka, "In the Penal Colony"
- Hugo, "Melancholia" (a poem)
- Primo Levi, *Survival in Auschwitz*
- Film: "2001, Space Odyssey"

Contact information

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Course Objectives

To become familiar with the literature of the monstrous, and with the complex cultural, sexual, medical, and scientific questions it has raised (and continues to raise) over time
To become skilled in reading texts critically and closely, whether primary, theoretical, or visual
To become more effective writers in the context of shorter and longer papers
To become increasingly adept at articulating ones ideas verbally, and at responding to the ideas of others

Requirements And Grading

Final Grades will be calculated from the weighted average letter grade for performance on:
Two 5-page papers on topics combining the scientific with the humanistic (weighted 20% each)
One project/class presentation (weighted 15%)
One final exam (weighted 25%)

Regular attendance in class and engaged participation (weighted 20%) are required of all students. If you cannot attend a class, please try to inform Harter or Gustin in advance.
Any paper or presentation submitted by a student must be written by that student (plagiarism is an honor code violation), but students are free to seek critical input on drafts of any paper or presentation from any third party.

Special Note

Students with disabilities requiring accommodations are encouraged both to speak with Harter or Gustin, and to contact the Director of Disabled Student Services in the Ley Student Center.